

NESTING HEIGHTS OF SOME LOUISIANA BIRDS

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IN certain studies conducted on birds, the nest-height position in relation to the ground has received some consideration. The investigations by Lashley (1915), Whitman (1919), and Allen and Mangels (1940) indicate that the nest-height position exerts a strong influence on the breeding birds. When Preston and Norris (1947) analyzed the heights of 741 nests in a 2-year study, they found: "That within a given species, some individuals persistently nest high and others low, and that an individual does not vary its nesting height over the whole range used by the species." Also, they state that in examples of typical woodland and bushgrown countryside, the greatest density of birds' nests is at ground level; however, in suburban areas of "perpetual alarms," the greatest density of nests is above the ground. In recent years, game managers have given considerable attention to the location of nests. Such studies, according to Davis (1955), are significant to discern the size and change of population and "from the speciation viewpoint, the analysis of variation in nesting site may provide information about trends in evolution." According to Baerg (1931), knowing the exact site of the nest is a valuable aid in the identification of the structure. Since most of the previous research on this subject has been on species in the northern portion of the United States (see Preston and Norris, 1947; Brackbill, 1950; Mayfield, 1952; and Cruickshank, 1956), this is the first investigation done in the state of Louisiana, or in the remaining Southern states on the heights of birds' nests above the ground.

The observations were made during the breeding season of 1963 in northern Louisiana, primarily on the campus and farm of the Louisiana Polytechnic Institute, Ruston, Louisiana. Searches for nests were also made in areas such as grasslands, lake and pond shores, and woodlands in a variety of places as cemeteries, yards, farms, and the campus.

A total of 522 nests representing 28 species, 17 families, and five orders of birds was found. The ten species, for which nine or more nests were located, the number of nests, the highest and lowest nests, and the mean height in feet are tabulated in Table 1. The mean height for the 522 nests was 9.1 feet from the ground.

The height range above the ground for the 522 nests is 0 to 50 feet. In this range, 415 nests (79.5%) were from 0 to 12.5 feet, 86 nests (16.5%) from 13 to 22.5 feet, and 21 nests (4.0%) from 23 to 50 feet above the ground. Furthermore, 237 (45.4%) of the 415 nests ranged from 0 to 6.5 feet while 178 nests (34.1%) were 7 to 12.5 feet above the ground. Ninety-five (18.2%) of the 237 nests were below 3.5 feet and 142 nests (27.2%) were found from 4 to 6.5 feet from the ground. The major difference between the data given

TABLE 1
NEST-HEIGHT DATA OF TEN SPECIES

Species	Number of nests	Lowest nest	Highest nest	Mean height in feet
<i>Zenaidura macroura</i>	30	8.0	26.5	12.7
<i>Cyanocitta cristata</i>	19	4.5	25.0	13.1
<i>Mimus polyglottos</i>	151	1.5	29.0	7.9
<i>Dumetella carolinensis</i>	11	3.5	12.5	7.4
<i>Toxostoma rufum</i>	108	1.5	18.0	7.9
<i>Turdus migratorius</i>	20	5.0	22.5	12.8
<i>Lanius ludovicianus</i>	9	7.5	29.0	13.2
<i>Passer domesticus</i>	35	9.0	50.0	20.8
<i>Agelaius phoeniceus</i>	48	1.0	17.0	4.3
<i>Richmondia cardinalis</i>	39	3.0	24.0	6.3

TABLE 2
THE DISTRIBUTION OF 470 NESTS

Species/Height (feet)	0- 3.5	4- 6.5	7- 9.5	10- 12.5	13- 15.5	16- 18.5	19- 21.5	22- 24.5	25- 27.5	28 over
<i>Zenaidura macroura</i>			11	9	4	1	2	2	1	
<i>Cyanocitta cristata</i>		1	4	5	4	1	1	2	1	
<i>Mimus polyglottos</i>	27	48	38	17	12	5	1	1	1	1
<i>Dumetella carolinensis</i>	1	4	3	3						
<i>Toxostoma rufum</i>	15	37	22	19	10	5				
<i>Turdus migratorius</i>		3	2	5	3	4	2	1		
<i>Lanius ludovicianus</i>			5		2		1			1
<i>Passer domesticus</i>			2	6	4	7	4	4	1	7
<i>Agelaius phoeniceus</i>	28	13	5	1		1				
<i>Richmondia cardinalis</i>	6	24	5	3				1		

by Preston and Norris and these data is that they found a higher percentage (44.0%) of nests at the 0- to 3-foot level, as compared to the lower percentage (18.2%) of nests in my study at about the same level above the ground. This difference is apparently because Preston and Norris found a greater number of low nesting species. Table 2 gives the distribution of heights of 470 nests.

According to the season, an individual bird may nest at different heights above the ground (Welty, 1962). Nice (1937) has shown this variation with the Song Sparrow, Walkinshaw (1939 and 1944) with the Field and Chipping Sparrows. Lawrence (1953) on the Red-eyed Vireo, and Laskey (1962) with the Mockingbird. The averages of the heights of new nests of the Mockingbird and the Brown Thrasher found at the given months are presented in Tables 3 and 4. The results indicate that nests of these species are placed at higher elevations as the season progresses.

TABLE 3
MEAN HEIGHTS IN FEET OF 127 NEW NESTS OF *Mimus polyglottos* FOUND IN THE
GIVEN MONTHS

Month	Number of nests	Mean height in feet
March	2	4.5
April	34	5.5
May	7	8.1
June	45	9.2
July	35	9.2
August	4	15.5

Evidence shows that sectional variations and habits of the Brown Thrasher probably exist. "The variations, believed to exist, relate in main to their choice of habitats, and nesting sites, . . ." (Sherman, 1912). In Massachusetts, this species often places its nests upon the ground or within 3 feet of that level; but in the western and southern portions of its range, this species seldom nests upon the ground (Bent, 1948). My data show that the nests of this species in the southern portion of the range are frequently more than 10 feet above the ground. Of the 108 nests, 30 were more than 10 feet above the ground.

Investigations that have been conducted on the nesting heights of certain North American species of birds indicate that the majority of these birds, especially those of eastern North America, nest at low elevations. Further investigations, however, on all species throughout individual species' ranges are necessary. Supplementary data from all sections of North America might reveal unknown nesting variations among certain species which might affect the overall height distribution of nesting birds. The author believes that more work needs to be conducted on the subject of the elevation of birds' nests with special emphasis on those species in the southern and western portions of the United States.

SUMMARY

An investigation on the elevations of birds' nests was conducted during the breeding season of 1963 in northern Louisiana, primarily on the campus and farm of the Louisiana Polytechnic Institute, Ruston. A total of 522 nests representing twenty-eight species of birds was found. The 522 nests ranged from 0 to 50 feet above the ground, with more than three-fourths of the 522 nests ranging from the 0 to 12.5 foot level. More than one-half of the 522 nests were below 7.5 feet from the ground. The mean height for the 522 nests was 9.1 feet from the ground.

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TABLE 4
MEAN HEIGHTS IN FEET OF 91 NEW NESTS OF *Toxostoma rufum* FOUND IN THE
GIVEN MONTHS

Month	Number of nests	Mean height in feet
March	2	6.8
April	24	6.2
May	8	9.1
June	38	9.3
July	19	10.2

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